



PATENT ABSTRACTS OF JAPAN

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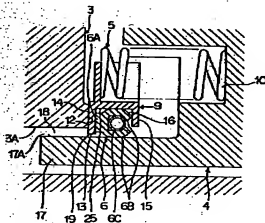
(54) MECHANICAL SEAL FOR HIGH PRESSURE

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(57) Abstract:

PROBLEM TO BE SOLVED: To establish a stable sealing effect of a mechanical seal following variations of its primary ring under higher pressure for a longer period of time, especially for effectively sealing in high-pressure gas, by improving its secondary seal structure for sealing in process fluid and narrowing a gap through which its seal ring is possibly forced out.

SOLUTION: A secondary sealing surface 12 of a primary ring 3 and a secondary sealing surface 14 of a disk 9 are brought into airtight contact with each other, and a seal ring 6 fitted into an annular groove 16 formed between an inner and an outer flange part 13 and 15 of the disk. The primary ring 3 is made of material of which elastic modulus and thermal expansion coefficient are smaller than those of a retainer 4 and the disk 9. A relief gap 18 is formed between the inner periphery 3A of the primary ring 3 and the outer periphery of a retainer sleeve, and a fine gap 19 narrower than the relief gap is formed between the outer periphery of the retainer sleeve and the inner circumferential edge of the inner flange part.



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